

Geological bases of the coal deposits prediction in the Volga-Ural oil and gas province in connection with depletion of oil resources

Khasanov R., Gafurov S., Muzaffarov I., Larochkina I.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Volga-Ural oil and gas province is one of the oldest on the territory of Russia and is characterized by the depletion of proven reserves. An alternative source of hydrocarbons that can replace conventional oil is coal. Within the Volga-Ural oil and gas province in the territory of Tatarstan in the Lower Carboniferous deposits by now identified and evaluated 95 deposits with resources of about 3.5 billion tons. Patterns of distribution of Visean coal deposits in the region are controlling by paleotectonic, palaeogeomorphology and facies factors. Evaluation of prognostic resources of Visean coals with considering to the conditions of their formation and involvement to erosional incision significantly increases the accuracy of the prediction. Coal resources comparable with oil and may have industrial importance as a source of coalbed methane. Researches indicate that the increasing of gassing from the formation is possible by thermal effects on the coal substance. Thermal effects on the formation may increase the efficiency of coal deposits mining by method of gas field.

Keywords

Coal, Coalbed methane, Mining, Prediction, Resources